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ABSTRACT

With the focus now on career education as a catalyst for producing self-sufficient and personally self-fulfilled human beings, efforts are being made to develop teaching techniques which will produce effective learning in the great percentage of the student body enrolled. This document explores some of the more widely used approaches to individualizing instruction in business education in secondary schools. These approaches are: (1) the systems approach, (2) mini-approach (using learning packets), (3) flexible-scheduling approach, (4) learning activity-centered approach, (5) quantitative-timing approach (used in teaching typing), (6) independent study, (7) self-paced instructional approach, (8) team-teaching approach, (9) problem-centered approach, (10) accelerated-program approach, and (11) integrated-activity approach. In addition, five recent research studies of special interest to business education teachers are summarized. Significant issues in program development in New York State and a variety of instructional materials appropriate for use in business education classes are included. (SN)

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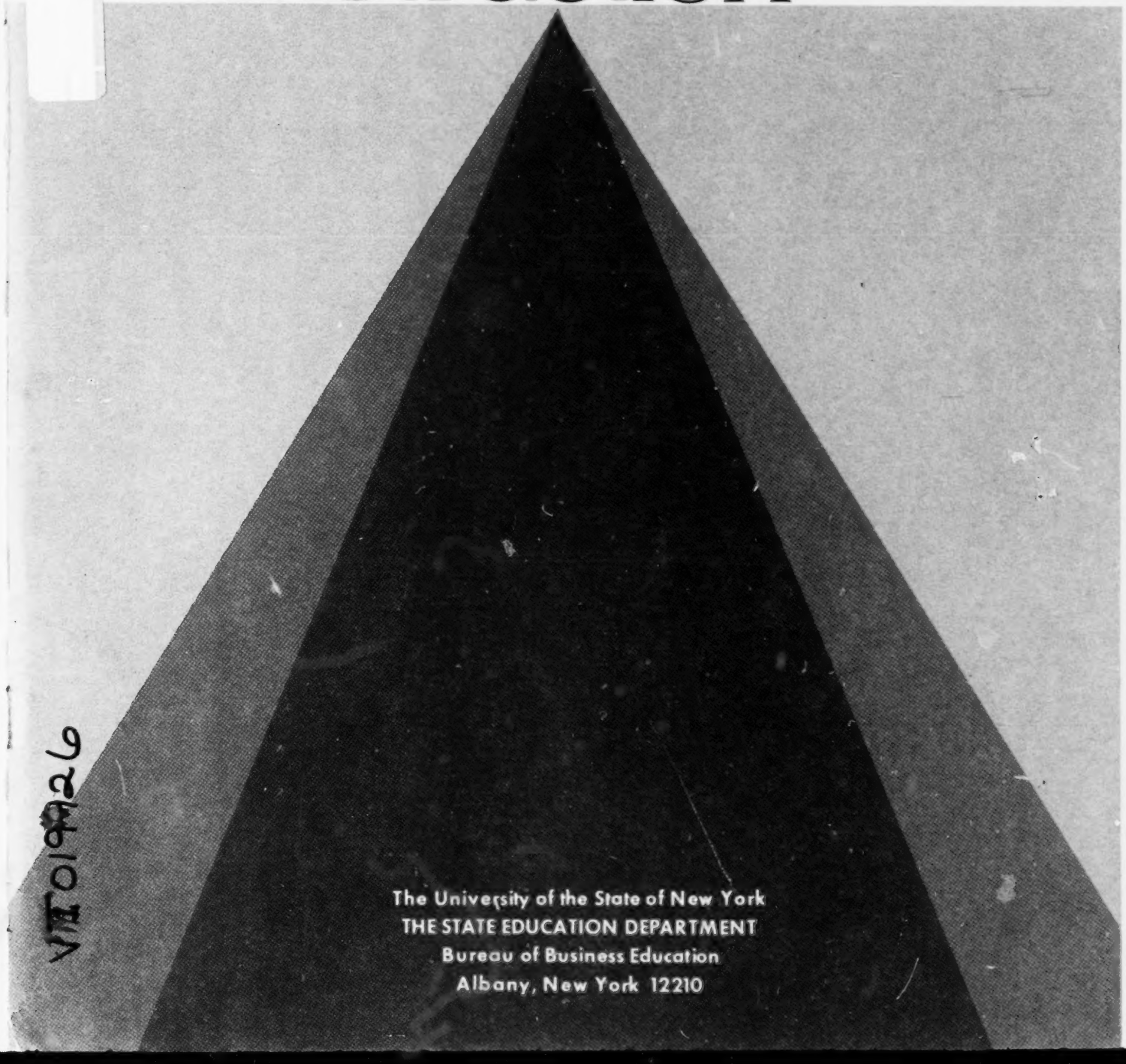

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The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of Business Education
Albany, New York 12210

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BULLETIN NO. 194

APPROACHES TO INDIVIDUALIZED INSTRUCTION

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of Business Education
Albany, New York 12210

June 1972

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Chief, Bureau of Business Education
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Dear Colleagues:

As you know, the bureau brings together annually a bulletin directed to one or more of the central issues in business and office education. This year we have called upon several schools in the field to assist us with the major focus of the bulletin -- implementing individualized instruction.

All too often students drop out of our courses or curriculum sequences without having attained a marketable job competency. The reasons are varied: some students become discouraged because they cannot maintain the pace of the class; some have difficulty mastering the course content; some find the content dull or irrelevant to their immediate needs. For these and many other reasons, it becomes increasingly desirable that teaching strategies be sought that will, at least in part, tailor courses to individual learning rates and styles. You will find in this annual bulletin, examples of attempts on the part of several of our New York State high schools to achieve this objective.

In addition to this central theme, the bulletin brings together a variety of program data, educational pronouncements, research findings, and instructional materials that will be of interest to all business educators.

Hopefully you will find the content of this publication as stimulating to read as it has been to compile. We can all be very proud of the contribution of business educators to career education and of their energetic efforts to make business education more effective for all boys and girls and adults of our State.

Hobart H. Conover, Chief
Bureau of Business Education

formerly
Bureau of Business and
Distributive Education

Robert H. Bielefeld, Director
Division of Occupational Education Instruction

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PART I - NEW FOCUS ON CAREER EDUCATION

U.S. Commissioner Encourages More Career Education

Sidney P. Marland, Jr., U.S. Commissioner of Education, continues to clarify his goals for a new emphasis on career education and the implications it holds for educational personnel, school programs, and, most importantly, pupils.

> The fundamental concept of career education is that all educational experiences - curriculum, instruction, and counseling - should be geared to preparation for economic independence, personal fulfillment, and an appreciation for the dignity of work. ... Career education will eliminate the artificial separation between things academic and things vocational. ... It will reveal to students the great range of occupational options open to them and help them develop positive attitudes toward work. [1] Career education would embrace vocational education but would go a good deal further. ... What I would hope for is a new orientation of education - starting with the earliest grades and continuing through high school - that would expose the student to the range of career opportunities, help him narrow down the choices in terms of his own aptitudes and interests, and provide him with education and training appropriate to his ambition. ... By career education I would have considerably more in mind than the teaching of specific skills. The student should learn about the wide range of job possibilities, he should learn what is involved in getting and holding a job, he should have guidance and counseling toward matching his interests and abilities with a potential career, and he should be guaranteed help in finding a job whenever he decides he is ready to enter the working world. [2]

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1 NEWS, October 1971. National Advisory Council on Vocational Education, 425 - 13th Street, N.W., Washington, D.C. 20004.

2 American Education, November 1971. U.S. Office of Education. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Single copy 50 cents; subscription $4.50.

POSITION OF THE REGENTS ON OCCUPATIONAL EDUCATION[3]

To guarantee an adequately prepared work force and productive employment for all who are able and willing to work, New York State will need to fashion a comprehensive system of occupational education programs and services. Such a system will be comprehensive in that it will serve the occupational education needs of all persons in the State, including persons attending nonpublic schools, and in that it will utilize all available resources for occupational education, in a coordinated, nonduplicative, and cost-effective manner.

A Continuing Program

The system will provide a continuum of occupational education programs and services, beginning in early childhood and extending through all instructional levels, including adult and continuing education. Components of this continuum will be designed to insure development of student characteristics at approximate key ages; for example:

- By age 9, the student understands the concept of work, appreciates the value of work and the worker, and is familiar with a wide variety of kinds and fields of work.

- By age 12, the student is familiar with the broad families of occupations, is aware of the prerequisites for employment in the various kinds and fields of work, and understands the ways of progressing from one occupational level to another. He is developing awareness of his own abilities, interests, and aptitudes in relation to various occupations.

- By age 15, the student is able to assess his own potential and to participate in making informed decisions regarding his immediate educational and occupational goals. His options include access to occupational programs which prepare him for immediate employment upon graduation, for continued occupational education at the post-secondary level, or for exit to the labor market prior to graduation.

- By age 18, every student is able to choose and plan the next step in his occupational and educational career. The occupational education student is able to obtain entry-level employment in occupations for which he is trained, and/or to enroll in post-secondary occupational education.

- By age 21, and for as long as he is able and willing to work, every individual is employed in a position commensurate with

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[3] Occupational Education, a Statement of Policy and Proposed Action by the Regents of the University of the State of New York, May 1971.

his skill development, and is able to select from continuously accessible preparatory and remedial programs which provide training and retraining for employability, advancement, job security, and mobility, appropriate to his talents, interests, and needs.

For these objectives to be realized, there will need to be greater career consciousness throughout the educational system. Career education is an idea whose time has come, not in the sense that preparation for work should become the sole or even major focus of the educational process, but in the sense that student exploration of career interests, aptitudes, and abilities is a powerful means of effecting a much-needed infusion of reality into the curriculum.

NATIONAL ENROLLMENTS IN VOCATIONAL EDUCATION

Sidney P. Marland, Commissioner of Education for the United States, has repeatedly stated that career education could affect 80% of the nation's secondary youth. At present, however, only 25% of the secondary students in the country are enrolled in vocational skills programs. The total breakdown of enrollment in vocational education looked something like this in Fiscal Year 1970:

Instructional Program	Total	Ele.& Sec.	Post-Sec.	Adult	Teachers
Agriculture	852,983	550,823	23,381	278,779	12,420
Distribution	529,365	230,007	82,160	217,198	10,458
Health	198,044	31,915	102,515	63,614	10,483
Home Ec (gnfl)	151,194	66,237	19,557	65,400	3,571
Homkng & Consumer	2,419,216	1,867,822	24,702	526,692	30,654
Office	2,111,160	1,331,257	331,001	448,902	45,081
Technical	271,730	34,386	151,621	85,723	14,241
Trade & Indus.	1,906,133	692,396	261,182	952,555	56,720
Other	354,135	309,608	17,307	27,220	4,789
Total	8,793,960	5,114,451	1,013,426	2,666,083	188,417

Source: AVA Member-gram, Vol. 3, No. 1, Fall 1971.

BUSINESS EDUCATION ENROLLMENTS
PUBLIC, PRIVATE, AND PAROCHIAL SCHOOLS
IN NEW YORK STATE

	1969-70	1970-71
Automatic Data Processing 1.	4,274	4,397
Automatic Data Processing 2.	982	1,096
Key Punch Operation.	720	769
Other Automatic Data Processing.		1,258
Bookkeeping and Accounting 1	47,300	45,689
Bookkeeping and Accounting 2	10,180	10,312
Bookkeeping and Accounting 3 (New York City)	1,346	784
Accelerated Bookkeeping.	1,251	1,046
Machine Bookkeeping.	991	705
Recordkeeping 1.	12,734	13,368
Recordkeeping 2.	1,933	2,064
Recordkeeping 3.	411	393
Business Arithmetic.	55,204	54,999
Business English	1,423	1,553
Business Law	29,528	27,393
Business Management.	3,931	3,443
Exploratory Business Education	2,812	3,790
Introduction to Business (General Business).	38,826	40,622
Machine Shorthand 1.	292	266
Machine Shorthand 2.	302	72
Machine Shorthand Transcription.	466	205
Manual Shorthand 1	41,218	42,908
Manual Shorthand 2	13,567	14,682
Manual Shorthand 3 (New York City)	1,953	2,000
Manual Shorthand Transcription 1	8,996	11,807
Manual Shorthand Transcription 2	6,491	6,694
Accelerated Shorthand.	1,165	975
Alphabetic Shorthand (Personal Use).	2,023	3,031
Machine Transcription.	669	641
Secretarial Practice	11,647	10,412
Office Practice 1.	22,570	23,402
Office Practice 2.	4,818	4,130
Clerical Practice 1.	8,172	8,218
Clerical Practice 2.	3,183	2,757
Office Reproduction Equipment Operation.	169	144
Twelfth-Year Vocational Business Practice.	198	392
Typewriting 1.	147,242	155,804
Typewriting 2.	19,139	22,670
Typewriting 3 (New York City).	4,965	3,976
Typewriting (Introductory)	20,933	18,647
Typewriting (Personal)	54,460	52,763
Accelerated Typing (New York City)	1,390	1,580
Civil Service.	1,160	940
Cooperative Work Experience.	1,982	2,732
Coordination Office Experience	392	--
Orientation to Work.	346	564
Consumer Education	3,636	3,185
Other Business Subjects.	5,158	8,123
TOTAL	603,156	617,401

PART II - APPROACHES TO INDIVIDUALIZED INSTRUCTION

ARE WE READY FOR THE SYSTEMS APPROACH?

H. Robert Stocker*

We in business education should be developing and following an instructional philosophy which will allow us to meet the needs of each student who desires preparation in our program. How can we do this? Is it possible for us to individualize our preparation that much?

Probably the best way to approach this problem is through the strategy of the systems approach. We need to organize our curriculum so that each student has the opportunity to enter the program at whatever point for which he can qualify. This means that the student will be allowed to test through courses if he already has sufficient knowledge or skill. This could also mean that we might have a student for a short period of time only, and yet completely certify him as having met all of the goals and objectives of our program.

In using the systems approach we have to realize that it is first of all a departure from our traditional way of thinking.[1] The systems approach is a method of problem solving which involves setting goals first and then viewing the preparation necessary to reach those goals in three parts or phases. These parts or phases are the input phase, which is the bringing together of all the elements that are to go into the system; the process phase, which is the combining, blending, and developing that happens to the input elements after they enter the system; and the output phase, which is the finished product (student who meets our goals and objectives) that the system produces.[2]

The first and most difficult step in designing our educational system is specifying what output is desired. In order to do this, we must state precisely what characteristics students should have when they leave our program. In other words, we must state our objectives in specific detail, not in broad generalities. Only when and if we accomplish this step can we proceed to design the process phase of the system.[3] That is, we can design the preparation necessary to take the student from where he is to where we wish him to be.

In using the systems approach there are two important techniques we should follow. First, systems analysis, which is the process of breaking down or taking apart the existing program and segmenting it into its separate parts or elements so that we can depict the

* Quoted from the Utah State Business Educator, Utah State University.

relationship of each part to the whole of our total program.[4] This has great application in our business education curriculum since a great part of our function is the integration of subject matter from a number of disciplines. As we all know, sometimes our classes cover material that is already being dealt with in other classes. Through systems analysis we can determine exactly what elements make up the total program.

The second important technique is the design or synthesis of our new educational system. We must proceed from systems analysis to design or synthesis because we cannot make decisions which will be relevant or practical without first specifying the appropriate tasks to achieve our specific purposes.[5] By carefully combining each of the separate elements of our total program during this synthesis phase, we can avoid duplicating similar subject matter in our classes.

However, we must approach the job of designing our process phase with an open mind. Instead of limiting our design to procedures that have been used for years and years, we must consider every procedure and tool available.[6]

Once we have determined our goals and objectives, analyzed our educational system, and then designed the new system to give us the appropriate output in accordance with our goals and objectives, we are still not through. At this point we must determine if our output does indeed meet or exceed our intended goals and objectives.

We must stress evaluation of all output, and evaluation must be conducted in some manner even if it is only subjective in the beginning. A systematic review and assessment of our product, e.g., the student, must be a routine procedure which we incorporate into our system and which is carried on as a continuous process.[7]

Now let's back up and see if we agree with what has been said. By using the systems approach to organize our total program in business education, we can indeed allow a student the flexibility of entering the program at whatever point coincides with his individual qualification. We can allow the student to test through any course for which he is already qualified. Also, we will be able to state precisely what our students can do at the conclusion of their preparation.

This means we may have to admit that some students will come to us with qualifications which meet or exceed those qualifications for which we routinely provide preparation. Therefore, on completion of appropriate testing it is conceivable, although not likely, that a student may receive no formal preparation from us, and yet we would certify that this student meets all of our objectives and thus is qualified to graduate from our program.

Thus, by clearly spelling out our objectives and by providing direction that is logical, timely, and consistent, yet not overly restrictive, we are able to greatly facilitate a student's creative power rather than slowing it up and wasting it.[8] Consequently, we are able to provide a program that allows us to individualize preparation so we can meet the needs of each one of our students.

Doesn't that make it worth it?

References

1. C. West Churchman, The Systems Approach (New York: Dell Publishing Co., 1968), p. 11.

2. Ralph A. Van Dusseldorp, Duane E. Richardson, and Walter J. Foley, Educational Decision-Making Through Operations Research (Boston: Allyn and Bacon, Inc., 1971), p. 4.

3. Ralph A. Van Dusseldorp, "The Systems Approach," NEA Journal, Vol. 56, No. 2 (February, 1967), p. 26.

4. Jack Blendinger, "ABC's of the Systems Approach," Education, Vol. 90, No. 1 (September-October, 1969), p. 56.

5. Ibid.

6. Van Dusseldorp, "The Systems Approach," p. 26.

7. Blendinger, "ABC's of the Systems Approach," p. 57.

8. Business Systems (Cleveland: Systems and Procedures Association, 1966), pp. 1-13.

INDIVIDUALIZATION: A TOTAL SCHOOL COMMITMENT

Donald L. Weintraub
Chairman, Business Education
Paul D. Schreiber High School
Port Washington

At Paul D. Schreiber High School in Port Washington, New York, we are involved in an individualized program in all aspects of our offerings. Instituting a program of this type has been a gradual process, involving all the department's teachers, the commitment of administrative personnel, and a student body willing and able to take advantage of this situation.

Individualization in Typewriting

In typing, we have established performance criteria which enable students to move easily through our three-course sequence. When the students finish Typing I material, they move directly into our "intermediate" course. This switch may take place in September, but might take place any time during the year. A student may start these courses throughout the year as well. Granting of credit is based upon performance criteria rather than an arbitrary calendar date.

Self-Paced Bookkeeping

The 2-year bookkeeping sequence which makes use of locally prepared tapes, assignments, and tests follows the same pattern as does our typing. Students move through bookkeeping at their own pace. Each year we have a number of students who finish Bookkeeping I before the year's end and start Bookkeeping II. Many elect to work on the material during the summer and finish the course before the following June. At that point, many students are able to begin "college level" work.

Individual Progress in Shorthand

In shorthand, we use cassettes to move our students from level to level. This is done in both our Gregg and Forkner shorthand classes. In business arithmetic, we use projects in lieu of text material, and electronic calculators are employed to overcome the students' basic computational difficulties. Next year we will join forces with the math department in an experimental community-based course in business mathematics.

New Course Offerings

Individualization is accomplished, as well, through increased course offerings. Schreiber High School's business department offers three law courses. In addition to a 1-year business law course, we have a half-year offering in consumer law (S.A.V.E.) and a full-year elective, Contemporary Legal Problems. This year we will expose nearly 10 percent of the total school population to one or more of our law courses.

A modular schedule which gives students greater responsibility for their education, a supportive administrative staff, independent study and open lab provisions, plus community cooperation are all part of the success we have realized to date. None of the programs described above would be possible, however, were it not for dedicated teachers who are flexible in their teaching and willing to spend their own time in developing, evaluating, and updating educational materials.

*****

IMPLEMENTING INDIVIDUALIZED INSTRUCTION IN TYPEWRITING

Herbert Yengel
Business Education Chairman
Farmingdale Senior High School
Farmingdale

Individualized instruction in applied typewriting, boiled down to its simplest terms, means the elimination of locked-step instruction. The following comments are intended to show how Farmingdale High School is attempting to implement an individualized type of instruction.

Course Objectives. At the outset, the following course objectives were agreed upon:

- To challenge the less motivated student to extend himself at a pace more nearly commensurate with his ability to achieve.

- To permit late registrants or students who miss class to continue from the point where the interruption occurred without undue pressure of having to "catch up."

- To give the student (vocational and nonvocational) sufficient skills to enable him to get and hold a part- or full-time position.

Keyboard Presentation. To develop the self-assurance necessary for mastery of keyboard before applying the typing skill, the time devoted to presenting the keyboard was extended beyond that shown in textbooks. This extended time span permits students to develop basic keyboard skills to the point where they are ready for typewriting applications with the least possible damage to their techniques and keyboard mastery.

To achieve this level of technique development and keyboard mastery, a multicycle approach to keyboard presentation was developed with three built-in overlapping phases taught on the battery plan.

Phase 1. Teacher, with duplicated lessons, introduces homerow, presents one new alphabetic or punctuation key daily, and strongly emphasizes techniques.

Phase 2. Teacher reinforces and refines one key daily, beginning with Lesson 1 of the adopted textbook, with special emphasis on individual techniques improvement.

Phase 3. Using a second text--one with a different approach to presenting the keyboard--teacher re-presents, refines, and reinforces one key a day, beginning with Lesson 1, and with still further special emphasis on individual techniques improvement.

Timed writings of ½ and 1-minute duration are used in the early weeks of instruction to develop as much speed with accuracy as possible before beginning application. While departmental typing speed requirements have been established, this does not mean that a student must be able to type at a specified speed in order to pass the course. Rather, the requirements affect a student's grade during each quarter. To assist the student in achieving a high speed with accuracy, the first part of every class period is devoted to accuracy/speed development planned by the teacher.

A number of timed writings are administered quarterly in which the student checks his errors up to an error cut-off and submits to the teacher those timed writings that qualify. To qualify for a given rate, the student must demonstrate his ability to type at that particular rate twice during the quarter, and his level of achievement is reflected in his quarterly grade.

Application. Application in the first year was narrowed in scope to the following: centering, outlines, manuscripts, letters, and tabulations. All other forms of application were deferred to the Office Procedures classes.

Learning packages were prepared giving step-by-step instruction, checking quality of work, and testing for self-evaluation for each kind of production problem. When the student feels that he has mastered the work of the packet, he may request a test. If he demonstrates an acceptable level of competency on the test, he moves to the next packet. If his performance is unacceptable, he is advised to practice similar jobs in that packet before taking a second test.

During the entire learning sequence, the teacher provides as many opportunities as possible for teacher-student interaction. The teacher monitors each student's progress, diagnoses learning problems, prescribes possible alternative experiences, and evaluates each student's progress in achieving stated performance objectives.

Grading. Grading for the first quarter is based on student's techniques and timings. For the second, third, and fourth quarter, the student's grade is based on techniques, timings, production (number of packets completed), and packet tests. By the end of the fourth quarter, a student who has not completed a required number of packets is given an "Incomplete" for the course, which may be removed through completion of work in summer classes.

Conclusions. At the present time, the following results are quite evident:

1. Students are responding very favorably. At the end of the second quarter, many are already working on what was formerly taught during the third quarter, and with very good results.

2. Teachers are now able to concentrate on those students who need the help.

3. Students who under the locked-step plan would be failed at the end of the quarter are now being given an "Incomplete" if the minimum number of packets were not completed at the end of the quarter. As these students reach the minimum number, their grades will be changed. Thus, standards are maintained at a high level and student failure is minimized.

*****

"HALF A LOAF" INDIVIDUALIZED INSTRUCTION IN TYPEWRITING

Doris R. Near
Business Education Chairman
West Islip Senior High School
West Islip

So you can't initiate individualized instruction "all the way" in typewriting; your school's schedule won't permit it? If a student were to finish the prescribed minimum instruction by April, the schedule would not allow him to leave the typewriting class? There's no way to take up the slack and there's no place for him to go if he leaves the class? So, you say to yourself, "Individualized instruction is out for my school." Maybe not. Maybe "half a loaf ...."

Why not try the unipac, packet, project approach (or whatever else you want to call it) for just one unit of instruction. Let students proceed through the unipac at their own pace, and when the allotted time is up, bring the whole class back together again for battery instruction on the topic to be taught next. Admittedly, it's not individualized

instruction in the true sense, but it's a beginning. You might find it so exciting that you'll want to try more.

Format of the Packet

What will your "packet" look like? Let's suppose you prepared one on "Vertical and Horizontal Centering." There will be duplicated material containing instruction on how to center vertically and horizontally. There will be problems for the students to complete. There will be a statement or two telling the student what standard he must meet before he can go on to the next problem (perhaps typing a centering problem with no more than three typing errors and no form errors). There will be a progress record containing a place for your signature when the student has satisfactorily completed each problem. There will be a series of tests, at appropriate points, which the student must take. There will be a list of supplementary problems for those students who finish the packet before the others do. (These could be given extra credit value to be added to the test grades.) And there will be a teacher who wears out six pairs of shoes running from desk to desk to OK papers and sign his name! But there will also be a teacher who does not carry stacks of typing papers home to correct. They are all OK'd, not corrected, in class.

Effect upon Student Motivation

What's so different about the "packet plan?" One very interesting thing--the way the students react. Our observation is that they work like little beavers!

You know what often happens under the battery plan. You explain a particular problem and then assign it to the class to be typed during the remainder of the period. They, oh so slowly, insert their sheet of typing paper, have five conversations with a neighbor, "plunkety-plunk" away, and finally finish the problem. If they finish before the class bell rings, they can see no value in doing an additional problem and certainly no value in doing the problem over again for improvement. When you return it the next morning, it contains detailed comments about what went wrong. What do they do? They glance at the grade on top and toss the paper into the basket. (So much for all your hard work.)

Our experience with the packet plan has been that students can't wait for the teacher to say "Begin." (We use the first part of the period for battery drill work.) Upon completing a problem, students can't wait for the teacher to check it over and affix the "OK" so that they can get started on the next one. (With 25 to 35 students in a typing class, you may find it difficult to check papers quickly so you can accommodate all the students in a limited period of time. We have found it helpful to prepare an overhead projection transparency of each

problem. Then we can simply overlay it on the student's paper to check for correct setup and quickly scan the paper for typographical errors.) You are able to identify immediately the difficulties they are encountering, and they gain the benefit of immediate teacher analysis and feedback. Even the last few minutes of the period are valuable to students--they spend them figuring out a problem for the next day's typing class.

The Mini-approach

Why talk about the "packet plan" in terms of individualized instruction? It's really a "mini" approach to true individualized instruction. But as a matter of fact, it might be a good idea to start out with "half a loaf" measures before you jump in all the way. It will certainly give you an opportunity to get the "feel" of individualized instruction before you've committed yourself, and your students, to a whole new teaching strategy. Try the "packet plan" and see how your students grow!

*****

TRY IT! YOU'LL LIKE IT!
(For All Your Problem Students)

Mary Duhrels
Mary Jane Boyce
Brewster High School
Brewster

Success at last! Because we were experiencing problems in reaching and retaining slow learners, the emotionally disturbed, and underachievers in school, Brewster High School last year initiated a new 4-year program entitled Integrated Business. The program is based upon self-paced instructional materials and teaching techniques extending over a 4-year period.

The first and second years of the program are devoted to developing basic office skills and the social skills of students. In the third year, students will specialize in two major content areas while keeping their basic skills and social skills at an adequate level. The fourth year will include cooperative work experience which we are currently in the process of establishing.

Students are screened and recommended for the program at the beginning of their high school career with the hope of preparing for several of the general clerical positions. We have found that students who have had difficulty in other courses during their freshman year can also be admitted to the program in their sophomore year.

Because few instructional materials are available that are entirely suited to the self-paced, individualized instructional mode followed in this program, the teacher is developing a variety of materials as the program progresses. She has, for example, recorded lessons on tapes, prepared instructional kits, and developed remedial lessons in English and mathematics.

Last year, students responded especially well to the individualized instruction, as their grades in Integrated Business as well as in related subjects showed. Three-fourths of the students in the program made marked improvement in English, social studies, and mathematics. Improvement in attendance and punctuality was further evidence that student interest was genuine, and several potential dropouts remained in school.

Integrated Business seeks as its primary objective to develop student self-confidence and to help students enjoy a degree of immediate success. Each student works at his own pace and ability level; this is vital to the success of individualized instruction. All work, furthermore, with the exception of typewriting, is corrected by the student before he turns it in, thus providing immediate feedback and fostering self-confidence. We have found that students are so stimulated that they use free periods to do additional work and to make up work missed.

As students have gained confidence in their ability to succeed, their general attitude toward teachers and fellow students has changed remarkably. Improvements in grooming and dress are further indicators of a new self-image.

Of course, this program is dependent upon good instructional equipment. At Brewster, we are fortunate in having tape transcribers and recorders, with many cassettes for them, both manual and electric typewriters, adding-listing machines, the overhead projector, the tachistoscope, the ditto and mimeograph, and record players. The teacher involved, Mrs. Mary Jane Boyce, was also specially prepared for this type program at one of the summer workshops for business teachers held at SUNY at Albany. The workshop, "Development of Curriculum for Slow Learners and the Disadvantaged," led by Miss Helen Safford, was designed to prepare teachers for meeting the type of student for which Integrated Business is designed.

Some of the problems encountered in getting the program under way were sufficient teacher time to develop the individualized lessons and related materials; limited class time because of double sessions at Brewster; and attrition in the program due to our mobile population. Two students originally in the program were rescheduled to academic programs because of their marked improvements in habits and attitudes. A few students were also scheduled into the B.O.C.E.S. program because of the stimulation and self-confidence gained in Integrated Business.

For a rewarding teaching experience, this type of program is unsurpassed. The teacher must be patient, understanding, and positive--remembering, however, that these children have thought of themselves as failures for a long time. For a few students, it may be just too late, but for the majority, it is the greatest thing that has happened to them in 9 years of school. TRY IT! YOU'LL LIKE IT!

*****

PROGRESS IN TYPEWRITING INSTRUCTION*

A new method of teaching typewriting has been put into effect at Centereach High School combining the skills of the teacher with the practicality of television. This combination allows the teacher to improve the quality of instruction while at the same time giving more individual attention to students. It makes for a more efficient utilization of effort in this most popular of Business Education subjects.

The media approach in the typing classroom is providing two valuable aids to the teacher. First, a series of 40 typewriting lessons on video tape have been secured from the New York State Education Department, Division of Educational Communication. These televised lessons range from the basic introduction of the keyboard to the more detailed instruction necessary for secretarial competency. While the televised instruction is in progress, the teacher has the time to closely observe each student's progress and give significant assistance immediately when needed by a particular student.

Secondly, the four large television sets are situated in the expanded typing classroom to allow each student to view an enlarged picture of the teacher's demonstration typewriter. Heretofore only a few in the front row seats could really see the demonstration clearly. Now with multiple screens and an enlarging television camera above the teacher's desk, each student has better than a front-row seat. The enlarged picture leaves no doubt as to which key or knob the teacher is indicating during the demonstration.

The TV classroom, designed and installed by Bernard Hanley and Bernard Fox was recently given whole-hearted approval by the State Education Department's Communications Consultant, Miss Nancy Pline who developed the television typing series ....

Through the utilization of this new system a more efficient use of time and space has been achieved, while at the same time raising the level of instruction. From the enthusiasm of both faculty and students the productivity in this TV-typing classroom will meet the efficient objectives of the administration.

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* Quoted from "The Bulletin Board," Middle Country Central School District No. 11, Centereach, Selden, Lake Grove, New York.

A CONTINUOUS PROGRESS PROGRAM

John DePaul, Chairman
Business Education Department
Tappan Zee High School
Orangeburg

During the past 5 years, our business department has felt the impact of the rapid changes taking place in the education process. In an effort to keep up with these changes, heavy concentration was placed on improving curriculum to provide occupational competencies for the career oriented student.

In order to implement a program whose objectives would fulfill these needs, the department accepted the philosophy of "nongradedness" as the pedagogic medium. Staff felt that this concept would provide for the needs of an increasingly large number of students with wide variations in background, experiences, interests, and abilities.

The next consideration related to the specific elements which would insure the success of the program: flexibility in scheduling, institution of learning packages, changes in modes of instruction, etc. At Tappan Zee High School, the strategy for the development of a nongraded, continuous progress program has been effective because there was full understanding and acceptance of the goals and operational requirements by the teachers in all departments. Although every department is unique, each is sharing with the administration the responsibility of curriculum planning and improvement on an on-going basis. The staff of the business department has eagerly accepted its role.

Students Accept Responsibility for Learning

The present program was organized on the premise that students will assume their share of reponsibility for learning. Considerable groundwork had to be laid, however, for effective student participation. For example, the department established a resource center with reference library and study carrels, an open laboratory was devised, new scheduling patterns were created for course offerings, a teachers' office was established for student conferences, and a series of learning activity packages were prepared.

The Learning Packages

Preparatory to the actual preparation of the learning packages, a committee was formed to investigate the learning activity package as a practical learning system. The conclusion was soon reached that the so-called "LAP" format would coincide effectively with already established concepts.

It was decided that each IAP would be arranged in five parts:

1. The rationale -- the "why" of the package
2. Behavioral objectives -- the expected outcomes
3. A pretest -- an assessment of what the student already knows with respect to the unit of study
4. Learning activities -- the "program" of instruction
5. Evaluation -- the means of assessing student mastery of the unit or the need for "recycling" certain activities

Varying Instructional Modes

Our teachers are constantly utilizing their energies to develop strategies for more effective learning through alternate styles and modes of instruction. Modes used to date include large group and small group instruction, laboratory work, simulated practice sets, independent study and the use of a variety of media, student-to-student learning, and teacher-to-student learning.

A flexible scheduling program is presently used that is organized around three major career areas: clerical, secretarial, and accounting. The school day is scheduled in terms of nineteen 20-minute modules, and students enrolled in the clerical sequence, for example, have an opportunity to be scheduled in a partially nongraded sequence consisting of Personal Typewriting, Typewriting 1, and Typewriting 2 at five different times in the school day. After completing Typewriting 2, students may then move on to the final courses in their career sequence -- Office Practice I and II in this clerical sequence.

Flexible scheduling thus provides students with many more opportunities for an elected course. Furthermore, class enrollments are increased because students are able to advance from one level to another at their own learning rate rather than drop by the wayside without having developed an occupational competency.

The Challenge Is Ours

For too many years, we as business educators have complained of the ability level of students enrolled in our classes. All too often we have stigmatized our enrollees as misfits or blamed guidance personnel for "dumping" underachievers in business education.

As professional educators, it is our duty to accept the challenge of students of all abilities and to provide learning opportunities that will prepare them for a productive life. Business teachers can provide all students with some measure of success by creating the proper climate for learning and by utilizing new individualized learning approaches. The nongraded, continuous progress "system" should be given careful consideration.

BUSINESS AND OFFICE OCCUPATIONS EDUCATION FOR INNER CITY SCHOOL STUDENTS

Roy LaGrow
IBP Coordinator
Syracuse Public Schools

IBP is now in its second year of operation in the city of Syracuse. The first-year program was initiated in 1970-71 in four junior high schools with an enrollment of 484 students. During the 1971-72 school year, the program was extended to six junior high schools and four senior high schools. There are 880 students currently involved in IBP--361 in the ninth grade and 519 in the tenth grade. The program is being enthusiastically received by pupils and staff and is expected to be extended to the third and fourth years during the ensuing school years.

The Integrated Business Program is designed to open new horizons for the disadvantaged student, the potential dropout, the disassociated student, the oustanding student, in fact, any student. The major objective of the program is to improve educational opportunities by developing and demonstrating a nongraded, modular-scheduled, student-oriented, occupational program designed to keep the potential dropout in school. This objective is accomplished by integrating the present linear or isolated courses into a 4-year continuum utilizing new innovative self-paced teaching/learning techniques and materials.

The program is innovative in three areas: time allotment and scheduling, minimizing failures and dropouts, and utilizing new learning approaches. Under the Integrated Business Program, students are scheduled two periods a day in the learning laboratory throughout their 4 years of secondary education.

IBP is learner centered rather than subject matter centered. Thus after considerable pretesting in the areas of mathematics and the language arts, each student begins the program according to his needs. He is able to avoid needless repetition in those areas in which he is strong, yet is afforded the opportunity for remedial work in those areas in which he is deficient.

As students progress through the 4 years, they achieve at a level at which they are capable - not at the average of the group. No one fails, no one is forced to drop a topic.

As students advance through the program, they are certified in each skill or content area. There are also competency levels for each content area; e.g., in the area of typewriting, the three certification levels include beginning, intermediate, and advanced typing; in the area of bookkeeping, the levels are recordkeeping, bookkeeping, and introductory accounting. This permits the student to learn and be

credited with as much knowledge as his ability and motivation permits. With the possibility then of being exposed to more subject areas, the student has greater content options while in school and can develop a wider range of career competencies upon graduation.

The problems of teaching linear structured courses to the totally involved child of today, and the time gap between basic and applied skills and knowledges are handled as follows:

Twelve topics have been identified common in two to five of the typical business courses. Skills and understandings are combined as the student advances from the simple to the complex in these content areas. This approach gives the student greater depth of understanding and allows as much time as is needed in a content area.

Topics which are unique to one or more occupational competencies can be covered within the 4-year continuum because needless repetition and overlap are eliminated. This approach also eliminates the hazard that certain courses or topics be missed because of conflicts in scheduling.

The program is based upon the use of unitized instructional packets. As a student selects a particular topic, either under teacher guidance or because of his own interests, he is provided one of the special packets. With one of these self-contained packages, the student can conceivably pursue the topic entirely on his own. Instructions are kept simple and direct the student to carry out such tasks as to "work" particular pages of the packet, "listen" to a cassette, and/or "look" at a certain filmstrip. Individual cassette recorders and rearview filmstrip projectors are available for each student and may be taken out of the classroom. Instructions which are needed primarily in the classroom are recorded on tape for use in a language laboratory where each student has a receiver available at his desk.

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PROJECT COBE
Competency in Occupations Through Business Education

William McQuay
Richard Pucher
Lewiston-Porter Central School
Youngstown

Although there has been an enormous output of technology by many groups and corporations in the business world, relatively little has

happened to allow for individual differences, needs, desires, abilities, and attitudes of students in our schools. Certainly machines have changed, buildings have changed, and state curriculum guides have changed, but all too often classroom organization, teaching procedures, and student learning systems have remained the same.

In September 1970, a model for change was presented to the entire staff of the Lewiston-Porter Central School and was unanimously accepted by the Board of Education, administration, and teachers. We in the business education department were particularly happy with the opportunity to change our method of instruction to one of individualization based on the behavioral approach. As members of the business education staff, we started an experimental program using learning activity packets during the second semester of the 1970-71 school year. Results were extremely gratifying, and, after discussion with the administration, we decided to change our business arithmetic program to this method of instruction.

Under the direction of Charles Blair, curriculum coordinator for the school district, we are currently in the process of changing our entire business education program to the behavioral approach.

This new approach, entitled Competency in Occupations through Business Education, is designed to develop a program in office education that will provide our students with entry-level skills in any aspect of business they may choose. Hopefully, it will provide students and employers alike a virtual guarantee of success on the job.

In the program, all business students will be required to take those basic courses considered essential as primary job knowledge and skills. After completion of these core requirements, the student will enter areas of specialization of his choice. This phase of the program will lead to the competencies necessary for the student to meet the requirements of immediate employment in the field he has chosen.

Opportunity is provided for the nonbusiness major to elect courses out of the program to supplement his major sequence. Courses such as Typewriting, Shorthand, and Business Law would be available for these students.

As business educators, we believe that a program of this type will be more relevant for today's student because it will give him access to the knowledges and skills necessary for him to function effectively in several areas of employment and, at the same time, provide free access to business subjects for the nonbusiness major.

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INDIVIDUALIZING TYPEWRITING INSTRUCTION WITH TYPEWRITER HARDWARE ONLY

LeRoy Brendel
Assistant Chairman, Secondary Educ.
Coordinator, Business Educ. Programs
Pace College, New York City
(Formerly, Chairman, Business Educ.,
West Hempstead)

This article is intended to outline how one school, West Hempstead High School, believing that the advantages of individualized instruction and progress in typewriting far outweigh its disadvantages, set about implementing such a program, using the typewriter as the only piece of hardware.

Initial Instruction. Assured through several years of experience that only through security at the typewriter, where the student is master of, not slave to, the typewriter, does a student eventually achieve job satisfaction for any and all types of typewritten work, the teachers at West Hempstead High School devote the entire first quarter of the school year to teaching the keyboard (one new letter a day with emphasis focused on developing, recalling, reviewing, reinforcing, and refining correct techniques), with much of the last 10-15 days of the quarter devoted to accuracy-speed development and Quantitative Timings. (For a complete description for developing and using this type of timing, see, "Quantitative Timings--A New Approach to Timed Writings," Journal of Business Education, November 1971.)

For the last 10-15 days of the quarter, the following levels of achievement have been proven, again through years of use, as reasonable and fair--

QUANTITATIVE TIMINGS
1st Quarter
Time: 2 minutes
Error Limit: 4

Level	WAM
1	17
2	20
3	23
4	26
5	29
6	32
7	35

--and also as a means for (1) motivating students, (2) evaluating the first quarter's work (as a minor part, however; major emphasis being on techniques), and (3) establishing a beginning point for the second

quarter's work, since, beginning with the second quarter, the student is shifted from a battery plan of teaching to an individualized plan.

Implementation. The individualized plan in West Hempstead is simply one in which accuracy-speed development packets are interspersed with application packets to be used if and when the need for accuracy-speed development is indicated by the student's achievement.

At the outset it was determined that 40 packets would cover adequately the essentials of typewriting during the last three quarters of the school year, with the 20 odd-numbered packets designed to develop accuracy-speed and the 20 even-numbered packets designed to introduce, review, recall, refine, and reinforce application.

Further implementation, however, called for the careful study and consideration of the following five steps:

Step 1, Accuracy-Speed Levels. During the second through the fourth quarters, the following accuracy-speed levels were set up as "prerequisites" for meeting the skill requirements of succeeding application packets:

QUANTITATIVE TIMINGS
2nd-4th Quarters

Level	WAM	Error Limit	Level	WAM	Error Limit
1	20	4	5	35	2
2	23	3	6	40	2
3	26	3	7	45	2
4	30	2	8	50	2

Step 2, Changeover. Again, based on several years of experience of what the "average" student should be doing at the end of the first quarter's work, it was determined that any student who passed Quantitative Timing Level 2, 1st Quarter (23 wam), would begin Packet 2 (application) and be given Quantitative Timing Level 2, 2nd-4th Quarters, for accuracy-speed development. All other students would begin the second quarter's work with Packet 1.

Step 3, Accuracy-Speed Packets. Twenty accuracy-speed packets (odd-numbered only) were developed. However, to permit students to progress as rapidly as possible with application packets, a plan was devised to permit the teacher to exempt a student from an accuracy-speed packet if he attained a given rate of accuracy-speed on a quantitative timing before reaching that particular accuracy-speed packet. To illustrate:

PACKET 1 Accuracy-Speed Development
TEXT: Typewriting Drills for Speed and Accuracy, 3rd Edition; Skill Drive 1, pages 2-3.
INSTRUCTIONS for this and all following odd-numbered packets: Type each line twice, followed by a blank line; then type each group once, followed by a blank line (within a reasonable error tolerance).
EXEMPTION: Level 3, 1st Quarter (23 wam)

PACKET 2 Centering titles; simple manuscripts.

PACKET 3 Accuracy-Speed Development
Skill Drive 2, pages 5-6
EXEMPTION: Level 2, 2nd-4th quarters (23 wam)

PACKET 4 Manuscripts (continued)

To illustrate further: If a student, working on Packet 2 (application), passes Level 2 timings, the teacher may exempt him from doing Packet 3, permitting him to proceed directly to Packet 4 (application). However, if the student has not achieved Level 2 timing upon completion of Packet 2, he would be required to do Packet 3. If he does not achieve Level 2 timing upon completion of Packet 3, he proceeds to Packet 4, regardless; he is not held up; but additional accuracy-speed work is suggested by the teacher.

Permitting exemptions from an accuracy-speed packet motivates the student to work on his own time on accuracy-speed development, and reasonably assures the teacher that the student has attained an accuracy-speed level commensurate with the skill level needed for completing the succeeding packet(s) without weakening, possibly destroying, his techniques.

The following standards were established for exempting a student from an accuracy-speed packet:

Accuracy-Speed Packets	Quantitative Timing Prerequisite	Accuracy-Speed Packets	Quantitative Timing Prerequisite
1	Level 3, 1st quarter	15-17	Level 5
3-5	Level 2, 2nd-4th quarters	19-21	Level 6
7-9	Level 3	23-25	Level 7
11-13	Level 4	27-39	Level 8

Step 4, Application Packets. Twenty application packets were developed, covering (1) entry-level typing skills needed in the world of work, and (2) the kinds of typing skills needed by college students.

Packets 2-10 (even-numbered only): one-page manuscripts; listings; simple outlines.

Packets 12-26: review, recall, reinforcement, and refinement of preceding packets; introduction of letters, two-page and formal manuscripts, substituting a References page for footnotes (footnotes per se not taught).

Packets 28-40: review, recall, reinforcement, and refinement of preceding packets; tabulations.

Each packet included four to six jobs as well as a copy of the test to be administered upon completion of the packet: Series A and Series B, both of which may be practiced in advance, but either of which may be teacher designated at time of administering the test. (For a complete description of the values of permitting students to practice tests before they are administered, see "Author-Prepared Tests as Take-Home Assignments," Business Education World, January-February 1970.)

To advance to the next packet, the student is required to attain a minimum packet score of 80 points made up of techniques (as observed daily by the teacher), packet work, and the packet test.

Step 5, Daily Classroom Procedures. To assure that every student in each of the several typewriting classes receives a "fair shake" of teacher time and attention, the following guidelines were set up for handling daily classroom procedures:

1. At least 10 minutes of each 40-minute class period is devoted to teacher-controlled and teacher-directed drills (techniques, locational security, and the like). Of course, if an individual student has a particular technique or key location problem that needs reinforcing or refining, that student should spend these 10 minutes on drills designed for that purpose.

2. At the end of 10 minutes, each student proceeds to his packet work: accuracy-speed development or application. EXCEPTION: On Tuesdays and Thursdays, two 3-minute quantitative timings are administered before the student progresses to his packet work to determine whether the student may be exempt from the next accuracy-speed packet or needs additional help in accuracy-speed development.

3. At the end of 10 minutes, the teacher passes out colored, stamped, or initialled paper (two sheets for two tries) to those students who indicate by raised hands their readiness for a test, for which 20 minutes are allowed for completing one of the two series.

4. The classroom atmosphere must be one in which the teacher works at the student's station with the student to help himself, not one in which the student works for the teacher at the teacher's station for only a grade.

5. During the laboratory period, the teacher is to work the floor ("off seat, on feet") (1) to see that each student is constructively engaged in purposeful typing; (2) to observe and correct techniques; (3) to see that the work being done, or having been done, is within a reasonable error tolerance; (4) to assist each student in his work-flow pattern; (5) to see whether the student is doing, or has done, the jobs in correct format--in other words, to correct errors and incorrect knowledges before they become securely fixed in mind.

Step 6, Student Evaluation. End-of-quarter and end-of-course standards were set up as follows:

2nd Quarter		3rd Quarter		4th Quarter	
Packets Completed	Grade	Packets Completed	Grade	Packets Completed	Grade
17	95%	28	95%	40	95%
15	90	26	90	38	90
14	85	25	85	37	85
13	80	24	80	36	80
12	75	23	75	35	75
11	70	22	70	34	70
10	65	21	65	33	65

The student who finishes all 40 packets before the end of the fourth quarter is given the option of (1) continuing with advanced work, possibly, if enough completed, for an extra half or full credit towards graduation, or, (2) being excused from class for the remainder of the year.

For the student who does not complete the minimum number of packets at the end of a quarter for a passing grade, the teacher, instead of failing the student, has the option of giving him an "incomplete." However, since such a student is requiring more time to complete a quarter's minimum requirement, and so as not to equate his performance with that of the student who completed the quarter's minimum work on time, he should (depending upon the additional time needed) be required to complete the following minimum number of packets for a passing grade: second quarter, 11-12; third quarter, 22-23, fourth quarter, 34-35.

CONCLUSION

Contrary to the somewhat prevailing impression that a typewriting teacher, to proceed successfully with an individualized progress plan, needs such multimedia as cassettes, tape recorders, record players, overhead projectors, and the like, such a plan as the one in use in West Hempstead proves otherwise. A teacher interested in individual progress, one who gives more than mere lip-service, with the aid of a carefully thought-out plan and well-written packets, can do a really professional job of teaching individuals, based on each individual's interest, ability, and needs.

A REALISTIC APPROACH TO TEACHING RECORDKEEPING

Louise Petraglia
Wallace Kravitz
Mineola High School
Mineola

In the typical recordkeeping class, 20 or more students with different abilities, interests, environmental backgrounds, and needs come together with one teacher in charge. This educator is expected to provide all instructional, clerical, planning, control, and evaluation services. In a short time, the perceptive teacher is aware of the boredom of the student in this class who is capable of moving through the various jobs faster, and the frustration of the student who is experiencing difficulty because he is trying desperately to keep up with and to meet the objectives set for the group.

It was such a situation which caused us at Mineola High School to ask these questions: "Why not implement a program that will permit students with greater ability and motivation to proceed on their own? Why not allow slower students to receive remedial assistance and to spend more time on learning activities that are more difficult for them?"

We Decided to Change

Recordkeeping is an ideal place to innovate because the clerical tasks are precise and can be paced at the student's ability. Once we decided to change, we knew we had to give up that cherished position of center-stage and take on the roles of organizer, analyst, coordinator, and private tutor. We knew we were undertaking a program aimed at providing the fullest development of the individual based upon his own capabilities. We spent 6 weeks one summer, writing packets for a program of self-directed learning that would allow students to achieve certain desired outcomes relevant to the course of study. The objectives were stated in clear, precise terms. The secret was out. The objectives were made known to the student. Now the student would know where he was going and the purpose for reaching each performance objective.

Various roads would be placed before him in the form of "learning activities." Some routes to the objective would be suggested by the teacher; others would be chosen by the student. He would make decisions based on his learning style, his ability, and his interests. When he decided he had obtained sufficient skill to perform the objective stated in the learning packet, he would request a test. If he achieved the level of accuracy prescribed, he would progress to the next objective or packet.

What Is the Student Learning?

Our goals have shifted--we have moved from a teacher-oriented classroom to a student-centered classroom. We ask not, "What am I teaching?" but rather, "What is the student learning?"

If you are teaching in a school atmosphere where innovation is encouraged, and if you wish to receive the satisfaction of seeing all students--even the unmotivated and the underachievers--come to class eager to perform because they experience success, try individualizing instruction. Make it your thing!

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INDIVIDUAL PROGRESS INSTRUCTION AT JOHN DEWEY HIGH SCHOOL NEW YORK CITY

Steve Rosen, Chairman
Miriam Lewis, Teacher

At John Dewey High School, individual progress in business education involves two discrete instructional modes:

Independent Study. Here the student works at his own rate during "study periods" without a teacher. The student registers for a 7-week course with an Independent Study Coordinator for business subjects and receives detailed self-instructional materials including study guides, cassettes, records, and textbook materials. At the conclusion of the 7 weeks, the student is given an examination and, if he succeeds, receives credit.

Self-pacing. Here individual progress is achieved in a way that would be applicable to all schools. The student registers for a subject such as accounting or shorthand and attends classes. The major difference from a traditional class, however, is that the student proceeds from lesson to lesson at his own pace and his progress is audited through a system of student self-checks. If the student succeeds in the self-check, he advances to the next lesson; if not, he is given additional materials to help him master the lesson content. The teacher is present for guidance and help at all times.

The Shorthand Program

The initial lessons in the shorthand program are taught somewhat conventionally, but stress is placed immediately on the techniques of

independent study. The homework for the first three lessons involves listening to teacher-made tapes which students can use in our Resource Center.

Beginning with lesson four, the students proceed independently as follows:

- The student listens in class to a 30-minute teacher-made tape on the new lesson.
- The student makes one copy of the lesson either in class, at home, or in the Resource Center.
- The student is given a self-check.
- The self-check is audited by the teacher.
- Results of the audit are reviewed with the student and specific recommendations made for improvement.
- A record is made of the student's progress.

Because we do not have a multichannel shorthand laboratory, we have made effective use of inexpensive junction boxes. Each junction box enables up to eight students to listen to one tape. Three cassette players function simultaneously and the teacher circulates among the groups giving help as needed.

Total class or group activities are limited to common needs. If several members of the class are experiencing difficulty with a theory principle, that principle is re-presented to the group. Special groups are also formed periodically to take dictation from a tape or to practice brief forms.

We have also found it feasible to permit the student, within reasonable limits, some degree of selectivity in the method of study. Certain students show a capacity to study the lesson without the use of cassette recordings and are permitted to do so. Other students prefer the professionally made cassettes and are permitted their use as an aid to their study.

Dropout Rate Has Sharply Decreased

As a result of the procedures described, our happy experience has been that the dropout rate in shorthand has sharply declined. We trace this to three factors:

- The student may complete his homework in class.
- When the absentee returns to class, he picks up where he left off.
- The bright student may proceed at the rate of a lesson a day.

Although our most oustanding success has been with shorthand, we have been using individual progress methods with data processing and accounting courses and have formulated plans for their use in typewriting.

TRY WE MUST!

Edda Perfetto, Chairman
Nanuet High School
Nanuet

With budget cuts and administrative pressures to reach more students, many a chairman is seeking ways to present a more attractive and educationally sound business education program. Nanuet High School is no exception. With an enrollment of approximately 1000 students, most of whom are college oriented in their educational goals, about 38 percent are enrolled in one or more business courses. To appeal to more students, however, some significant changes have been made both in course offerings and design.

Team Teaching

At Nanuet we have taken a variety of steps to make our classroom presentations more vital through team teaching.

Consumer Economics. This course represented our first attempt at teacher teaming and, in this case, involved a teacher from the business education and social studies departments. Each teacher has been able to bring to the course varied personal experiences, educational backgrounds, and divergent points of view. As the result of joint lesson planning, the dynamics of two teacher personalities, and vital class discussions, this course has gained widespread student interest and proven an extremely popular senior elective.

Business Mathematics. Team teaching has taken on a different pattern in this course. The course is project oriented, and predetermined levels of competency have been established for each topic, ranging from mastery of basic problems to advanced problems and understandings.

Students who experience difficulty with a particular topic are separated temporarily from the mainstream and given remedial help in a smaller group by one of the teaching team. The remaining students proceed to move on to more challenging problems on the same topic. As the teacher of the remedial group becomes satisfied with student progress, the students are returned to the mainstream and the class proceeds as a whole to the next topic.

General Business. Experimentation with the project methods and team teaching has also taken place in General Business. Because of the discrete topics incorporated in this course of study, team teaching has been able to bring to the class the varied

training and personal experiences of each of the teachers involved.

Special Courses for the College Bound

At Nanuet we have also sought to design courses aimed at the unique objectives of the college bound. In cooperation with Rockland Community College, a 1-year course in Pre-college Accounting was developed and any student who successfully completes the course is excused from the introductory accounting course at the college. The student must, however, pass an examination prepared jointly by the two departments (high school and college) and be recommended for this exemption by the high school accounting teacher.

These are only examples of our attempt at Nanuet High School to make our program more effective. But TRY WE MUST to meet the challenge of continuous change. And for every change, another organizational approach or teaching strategy may be needed.

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INTEGRATED FINANCIAL RECORDS
A NEW APPROACH TO BOOKKEEPING

Daniel McGillicuddy
Hilton Central School
Hilton

One of the most serious problems we face as business educators is the varying abilities and learning rates of our students. We must provide the slower student with a meaningful educational experience so that he can eventually become gainfully employed, while at the same time attracting and holding the interest of the more capable student. In the traditional classroom, we have aimed at the average student out of necessity and have consequently missed many students. The slower student has become frustrated, often spending 2 years in one course, while the faster student has become bored and in many cases has chosen another field that will offer him greater challenge.

With these facts in mind, the Integrated Financial Records program was established at Hilton High School. It combines the subject matter previously taught in Recordkeeping, Bookkeeping, and Accounting into a three-unit integrated sequence and is enriched in the areas of data origination, source document orientation, and data processing. Part I of the program deals chiefly with recordkeeping concepts, while emphasizing accurate completion of source documents. IFR II is similar to the

traditional Bookkeeping I course, while providing a more thorough understanding of data processing from manual to electronic procedures. The third and final part of the sequence develops occupational competency while at the same time providing a substantial foundation for a professional career in the field of accounting. Termination is possible at the conclusion of any of the three parts.

This program is unique in that each student must begin with Part I of the sequence, but may proceed entirely at his own pace through the remaining sections of the curriculum. The concept of continuous academic progress is here being implemented by use of the individualized multimedia learning guide. By this method, packets are constructed whereby a concept is developed within a unit of work.

Students are able to see and understand what they are about to learn and why they are going to learn it through stated behavioral objectives at the beginning of each packet. These objectives, if properly developed, can suggest the kinds of activities which might be included in the learning packet.

Once the preliminary but critical steps of defining the instructional objectives and evaluational procedures are completed, the student will turn his attention to a variety of activities from which he may choose to learn the content, skill, or material involved. The packet must give necessary information, ask questions, and refer the student to other resource materials.

A student can become actively involved in the learning process when a taped lesson requires responses on a worksheet. As the student puts on the earphones and turns on the tape recorder, he becomes engaged in a personal conversation between himself and the voice he hears. Prerecorded tapes keep the student active and the earphones minimize outside distraction, permitting the teacher to work with another group of students on the same or a different lesson at the chalkboard or in a seminar. Taped teaching serves the teacher and the learning process when prerecorded material is used to reinforce recently acquired concepts, provide practice in a skill area, or offer remedial help.

Another mode of learning is the single concept film loop. It is a 4-minute Super 8 mm. color motion picture film wound in a continuous loop within a plastic cartridge and used in a relatively inexpensive, small, ultra-simplified projector. The accompanying tape recording, similarly packaged, is equally easy to use. The nature of the hardware permits it to be controlled by the student to meet his individual needs without disturbing the group or being disturbed by the group.

Finally, the student arrives at the point where he decides that he has mastered, to the degree indicated, the instructional objectives. He then faces an evaluation, known as the posttest, which is self-administered. This instrument commonly includes a set of questions

with the answers readily available, which can be used by the student to examine his own level of achievement. He is then directed to a conference with the teacher, and to the final teacher test. Upon successful completion of this examination, he proceeds to the next packet. If he does not demonstrate a level of competency that the teacher has defined as the level of acceptance, he is recycled into those kinds of optional activities he has not chosen but which he and the teacher together feel can provide the level of achievement desired.

By this means, the student is able to proceed entirely at his own pace, so that there is no need for a student to become frustrated as a result of not keeping up with the class or failing. Failure cannot result because the student did not understand and did not have the time necessary to grasp the understandings required for success. The student becomes motivated as never before. He is suddenly achieving at a much higher level. Frustration and failure have been removed. He enjoys his new one-to-one relationship with his teacher.

While the teacher is not eliminated by any means, his role is definitely changed. He becomes the preparer of instructional materials as well as another resource available to the student in the capacity as an individual tutor. The flexibility of the teacher becomes an extremely important factor because of the various levels of student progress.

The foregoing concepts, while innovative at Hilton, are not untried experimental theories, but rather are proven, successful concepts worthy of implementation to improve instruction. Through these concepts, business education will be able to move forward with relevancy for the students of today.

PART III - RECENT RESEARCH STUDIES OF INTEREST TO THE BUSINESS EDUCATOR

A STUDY OF OFFICE EMPLOYMENT EXPECTATIONS OF WHITE AND NONWHITE BUSINESS EDUCATION STUDENTS

Edward Bernard Brower
Doctoral Dissertation
Temple University, 1970

Edward Bernard Brower, in his doctoral dissertation completed at Temple University in 1970, arrived at several conclusions as the result of his study which should be of significance to all business educators. Excerpts from the study are reported below.

> Secondary school business education programs must be responsive to the needs of both office employers and business education students. Office employers seek office employees who possess various skills, office employment information, and various personal traits. Correspondingly, business education students desire those abilities sought by office employers.
>
> Research has been completed relative to the specific skills desired by office employers and much has been written concerning the office employment information and personal trait deficiencies of office employees. However, little formal research has been designed to determine (1) the office employment information possessed by business education students, and (2) if students feel as strongly as do businessmen concerning the vocational importance of various personal traits. Moreover, many studies completed to date, using business education students as sources of data, treat these students as a homogeneous population, without determining if students of different races, socio-economic strata, business education concentrations, or achievement levels view their futures in office employment differently.

Mr. Brower's study was designed, therefore, to determine (1) the office employment expectations of white and nonwhite business education students and (2) the effect of various factors on office employment expectations. The conclusions reached by Mr. Brower are as follows:

- There are numerous significant differences between the office

employment expectations of business education students when compared on the basis of race, achievement, business education concentration, and socioeconomic status.

- None of the student subgroups (white or nonwhite; bookkeeping, clerical, or secretarial; high or low achievers; or high or low socioeconomic status) appears to have office employment expectations that approach the responses collected from the office supervisory personnel.

- There was little consensus among the office supervisory personnel on many questions posed to them. Many of the criticisms directed at beginning office employees may be accurate in the individual case, but should not be generalized to represent the criticisms of all office employers.

- The office employment expectations of business education students can be determined. When analyzed systematically, it appears that these expectations can be the basis for changing existing business education programs.

Recommendations

- Vocational competence for the office employee includes not only the development of specialized skills but also the development of accurate expectations concerning office work. To the degree that the expectations of students do not agree with information collected from office supervisory personnel, it can be said that the students' expectations are inaccurate. Correspondingly, students with inaccurate expectations are not vocationally competent. The responsibility for providing prospective office employees with these skills and expectations rests with various change agents, i.e., classroom teachers, teacher preparation programs, and guidance personnel.

- Accurate office employment information should be included as the subject matter of various business courses, e.g., office practice. Many of the inaccurate expectations of business students are undoubtedly attributable to ignorance or misinformation.

- Classroom instruction must take into account the factors that have a significant effect on office employment expectations. Students of different races, achievement levels, business education concentrations, and socioeconomic status levels have different expectations. Consequently, the depth to which a teacher probes when teaching, the illustrations used, the assignments made, and general attitude must be dictated by the students being served.

- Greater use should be made of office supervisory personnel as resource people. Perhaps the comments of employers or employment supervisors are more meaningful or more authoritative than similar comments by classroom teachers.

- Former students, presently employed in office work or involved in cooperative office work experience programs, should be used as resource people. The peer group might serve to bridge a possible credibility gap existing between students and teachers.

- Classroom teachers should consider engaging in various activities designed to acquaint them with current office practices. These activities might include office visitations or part-time office work experience.

- Many of the expectations of business students appear to be related to basic attitudes. Consequently, lessons should be planned that are designed to shape various viewpoints that may represent deterrents to office employment success. Expectations that relate to personal traits could be the subject matter of specially designated shaping lessons.

- Teacher preparation programs should include learning experiences designed to acquaint prospective business teachers with the peculiar problems of students who find it difficult to develop accurate office employment expectations.

- Included in the experiences planned by guidance personnel should be an indepth exploration of the qualifications necessary to succeed in office employment, the opportunities available to people who have obtained vocational competencies; liberal use of employment supervisors as resource people; and structured visitations to community offices (as opposed to walk-through visitations).

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HOW THE COMPUTER MARKET IS GROWING*

Computer census taken by Diebold Group shows narrow margin of growth for 1971 over 1970.

By Application

	1970	1971
General purpose	50,475	50,591
Monitoring/control	16,665	24,990
Plus in both categories	5,937	7,900

By Manufacturer

	1970	1971
Burroughs	1,771	2,070
Control Data Corp.	1,910	1,880
Digital Equipment	7,918	11,745
Honeywell	4,405	5,937
IBM	38,300	38,629
NCR	2,988	3,755
Univac	4,703	4,740

*Administrative Management, January 1972

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MODIFYING DISADVANTAGED STUDENTS' PERCEPTIONS OF OFFICE WORK (Project BOOST)

Harry Huffman
Clyde Welter
Marla Peterson

The following paragraphs were extracted from a research report dealing with the modification of disadvantaged students' perceptions of office work conducted through The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Statement of the Problem

Business and office occupations are rapidly growing and thus require greater numbers of personnel than are presently available. Employers, therefore, are seeking new sources of manpower. Under these conditions, one would expect that a multilevel occupational area such

as business and office occupations would attract relatively large numbers of employees from all societal groups, including the so-called disadvantaged -- people who represent a previously untapped manpower pool in our society. Despite the growth in numbers of jobs, however, there has not been the anticipated corresponding increase in the numbers of disadvantaged people entering business and office occupations. This phenomenon is rather curious, but the experience of employers reveals why people from disadvantaged groups are not entering the business and office occupations in the expected numbers: they do not possess the skills needed to enter these occupations, and they do not possess the skills because they have not been entering the training programs.

Procedures

Two studies were made to determine the perceptions of office work and workers of disadvantaged students. These studies indicated that such students do hold inaccurate perceptions of office work.

A workshop was then held to develop materials and procedures that would be effective in correcting the inaccurate perceptions. The materials were submitted to tryout and evaluation in two studies. The results of the tryouts indicated that the use of the materials was related to improved performance on two clerical aptitude tests: Clerical Speed and Written Directions. However, no clear relationship between the use of the materials and change in perceptions of office work was obtained.

The last phase of the project was concerned with developing materials and procedures for preparing teachers to work with disadvantaged students. These materials were not submitted to tryout as part of the project. The tryout has been started, however, and will be a major component of a study now in progress concerned with recruiting and preparing of teachers for working with disadvantaged youth.

Conclusions of the Project

The following conclusions were drawn as a result of Project BOOST (Business and Office Occupations Student Training):

1. There appear to be no national indices of perceptions of office work. Office workers in one city do not necessarily have the same perceptions of office work as do workers in another city. Similarly, student perceptions of office work were found to vary from city to city. Hence, the teacher in the local situation must compare the perceptions of his students with those of office workers in the employment community to discover perceptions that need modification.

2. The units tried out in the intensive evaluation according to the implementation plan have the potential for making significant changes in perceptions about office work.

3. Teachers generally have only limited opportunity to change perceptions of disadvantaged students.

4. Any attempt to modify perceptions of disadvantaged students must take into account the total educational complex. Experience in the project demonstrated that changes in the educational program cannot be successfully accomplished without the involvement and commitment of the community and school as well as the teacher.

5. Clinical experiences appear to be the best vehicle to change perceptions of teachers about the disadvantaged. Firsthand experiences in the disadvantaged community which were arranged by the project reportedly did much more to increase teacher understanding of the problems of the disadvantaged than did all the reading they had done and the audiovisual materials they had seen.

Note: The complete study may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price $1 Stock Number 1780-0846

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WOMEN AND WORK

The Center for Vocational and
Technical Education
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

The study, High School Senior Girls and the World of Work: Occupational Knowledge, Attitudes, and Plans, affords insight into changing vocational and educational needs of girls.

Results:

- Metropolitan girls indicated more knowledge of the world of work and fewer plans for full-time work than did girls from non-metropolitan communities.
- Vocational school girls scored higher than the other girls on the extrinsic reward attitude scale, apparently attaching more value to such rewards from work as salary, promotion, and benefits.
- Girls with the highest social status indicated more knowledge of work, less concern with the extrinsic rewards of work, plans for more education, more part-time work, and less full-time work than girls whose families were of a lower social status.

- Even allowing for these differences, the high school senior girls in this study were not well-informed about the probable nature and extent of their future vocational participation. Their attitudes and plans reflected this lack of information.

Implications:

- As girls grow up they must be encouraged to develop broader concepts of the woman's role. New school programs should involve contact with successful models of the wife-mother-worker roles.
- Girls need help in anticipating long-term future needs. Early help from enlightened teachers and counselors who are not bound by traditional stereotypes is required.
- Girls should be encouraged to question the traditional, narrow range of occupations deemed suitable for women. Individual needs and goals are to be emphasized in their planning, rather than traditional expectations for women.

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BASIC COMPONENTS OF OFFICE WORK -- AN ANALYSIS OF 300 OFFICE JOBS

Lawrence W. Erickson
UCLA Graduate School of Education
Los Angeles, California

This study involved indepth interviews with 300 office workers and their supervisors in the Los Angeles-Long Beach area of California (1) to identify and analyze those job components which would be considered basic to most beginning and intermediate levels of office work and (2) to consider the implications of these findings for the business education curriculum. The jobs were held by workers 16-24 years of age who had less than the baccalaureate degree.

Ten basic components of office work were identified which comprise 5 percent or more of total job time.

Basic Components of Office Work (5 percent of More of Total Job Time)	Percent of 300 Jobs in Which Component Occurred
1. Communicating and Other (Interpersonal Relations)	90%
2. Sorting, Filing, and Retrieving	71%
3. Typewriting	49%
4. Checking, Computing, and Verifying	47%

Continued

Basic Components of Office Work (5 percent or More of Total Job Time)	Percent of 300 Jobs in Which Component Occurred
5. Collecting and Distributing	21%
6. Operating Business Machines (other than typewriting and ADP equipment)	18%
7. Operating Automatic Data Processing Equipment (ADP)	14%
8. Taking Dictation	10%
9. Supervising, Planning, and Training	3%
10. Analyzing Procedures and Flow Charting	3%

Teachers are urged to avail themselves of the study available from South-Western Publishing Company, Monograph 123, because of the implications of the findings upon curriculum content and emphasis.

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PART IV - MISCELLANEOUS DEVELOPMENTS OF SIGNIFICANCE TO PROGRAM DEVELOPMENT

WHO CAN TAKE REGENTS?

High school students can take Regents exams and gain Regents credits toward a diploma without enrolling full-time in a course or even at the school where the test is given, under a new amendment to the Regents rules.

The Board of Regents liberalized the requirements governing who is eligible to take the Regents exams in September, encouraging schools to make wider use of the exams for those students able to demonstrate proficiency gained through out of school or independent study. Students would be admitted to the exam at the discretion of the principal where the exam is offered.

In explaining the rules change, Commissioner Nyquist said "we must recognize that students and adults learn in many ways and be willing to grant academic credit for knowledge, no matter how or where it has been acquired."

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POTPOURRI OF FUTURE BUSINESS LEADERS OF AMERICA

Did you know that ....

- New York State is divided into eight FBLA districts
- There is only one man on our Board of Trustees
- FBLA has 13 student State officers
- We have an annual State convention
- National and State dues are only $2 per member
- Several of your students can attend our summer leadership training camp

- Our largest chapter has 82 members; our smallest, six
- There will be a 1-day district meeting (with contests) in your area
- Our northernmost chapter is located in Malone
- Submitting an application form, constitution, and list of members affiliates your business club with national and State FBLA
- FBLA State officers attend the BTA convention each year
- FBLA was the first youth group to receive an absolute charter from the University of the State of New York
- We sponsor and conduct 15 competitive events ranging from Filing to Computer Programming
- In 7 years we have grown from 22 chapters to 50+ chapters
- Our State newsletter comes out three times each year
- Any student who is currently enrolled in or has completed at least one business subject is eligible for membership
- Several business teacher associations sponsor competitive events at our convention
- Our easternmost club is Comsewogue High School
- Your FBLA charter is permanent and may be easily reactivated
- You may join FBLA up to the time of our annual conference

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PART V - SUPPLEMENTARY INSTRUCTIONAL MATERIALS

JOB ATTITUDES

AUDIOVISUAL MATERIALS

Guidance Associates, Pleasantville, New York 10570

The Job Attitude Series of sound filmstrips in color is designed to stimulate discussion leading to a better understanding of the world of work. Free preview; cassette available at additional cost.

- Why Work at All? $18. Three young workers discuss their personal criteria for job satisfaction, each from a different viewpoint.
- Trouble at Work, $35. Actual on the job situations depict areas of potential conflict: hazing, lack of communication, absenteeism, ambition.
- Liking Your Job and Your Life, $35. Four skilled workers describe the opportunities and enjoyment derived from skilled jobs, and the importance of understanding the relationship of job to a satisfying life-style.
- A Job That Goes Someplace, $35. The complicated process of advancement both horizontally and vertically, is depicted through the experiences and goals of actual workers.

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CONSUMER EDUCATION MATERIALS

The National Executive Board of Delta Pi Epsilon has announced that a new publication entitled CONSUMER EDUCATION PROGRAMMED LEARNING INSTRUCTION BOOKLETS is now available. The materials were developed and field tested by members of Alpha Phi Chapter, Delta Pi Epsilon, at Northern Illinois University, DeKalb, Illinois.

The materials are designed for use with secondary level students and include the following separate booklets -- Instructor's Handbook; General Principles of Consumer Purchasing; Budgeting and Managing Money; Using Consumer Credit Wisely; Buying Goods--Food; Buying Goods--Clothing; Buying Goods--Household Furnishings and Appliances; Buying Services;

Purchasing and Maintaining Automotive Products and Services; Using Leisure Time, Energy, and Money; Housing: Making Use of Insurance; Savings and Investments; Consumer Taxes; and Consumer Rights and Responsibilities.

The booklets can be used in any one of the following ways: (1) as a basic text material for a unit of study; (2) as supplementary text material for a unit of study; (3) as a source of review; (4) as a means of makeup work; (5) as practice tests; and/or (6) as a source of information for filling in specific gaps in information and understanding.

Order blanks showing the costs of the materials are available from the Delta Pi Epsilon National Office, Gustavus Adolphus College, St. Peter, Minnesota 56082. A 20 percent quantity discount is allowed on orders for four or more of the booklets.

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500 MOST FREQUENTLY USED WORD COMBINATIONS

Now available to you is a booklet listing the 500 most frequently used word combinations and the 5,000 most frequently occurring words in business letters. This publication is the culmination of extensive nationwide research by Devern J. Perry. It is the most up-to-date business word list available and is a must for any business educator's library. It is also ideal as a basis for additional research. Copies are available at $2 each from Alpha Omega Chapter, Delta Pi Epsilon, 351 JKB, Brigham Young University, Provo, Utah 84601.

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WRITING PERFORMANCE GOALS

Teachers who are interested in developing proficiency in the writing of performance goals will find the publication "Writing Performance Goals: Strategy and Prototypes -- A Manual for Vocational and Technical Educators" of considerable help. The publication resulted from a cooperative project undertaken by The Center for Vocational and Technical Education at The Ohio State University and the McGraw-Hill Book Company. The project "sought to develop prototypes of performance goals for use by curriculum specialists and developers of instructional materials in

vocational and technical education and to provide concomitant guidelines for training writers of performance goals."

Copies of the publication are available from Gregg Division, McGraw-Hill Book Company, Hightstown, New Jersey 08520. Net price $3.60 per copy.

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CAREER INFORMATION ON BUSINESS AND OFFICE OCCUPATIONS

Teachers of business and office education who are interested in building school library resources dealing with careers in the business and office occupations will be particularly interested in a recent publication of the American Vocational Association. Content of the publication was drawn wholly from a thesis entitled "Identification and Evaluation of Published Career Information in Distributive and Office Occupations" prepared by Teresa D. Walton under the supervision of E. Edward Harris at Northern Illinois University.

The publication, available from the American Vocational Association, 1510 H Street N.W., Washington, D.C. 20005, at 60 cents per copy, provides an invaluable listing of career reference material for high school or college students who may be exploring careers in the business and office occupations.

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PUBLICATIONS AVAILABLE FROM THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

The following professional publications of interest to teachers of business and office education are available on a purchase basis from the Center for Vocational and Technical Education, 1900 Kenny Road, Columbus, Ohio 43210. Titles and cost of single copies are listed on the following page.

	Microfiche Reproduction	Hard Copy Reproduction
Research and Development Series (RD)		
• "Implications of Women's Work Patterns for Program Development in Vocational and Technical Education," by Sylvia L. Lee and Others, 1967, 80 pages (ED 016-812)		$2.00
• "A Guide for Planning Facilities for Occupational Preparation Programs in Data Processing," by William A. McIntosh, November 1968, 67 pages (ED 023-927)		2.00
• "A Guide for Planning Facilities for Occupational Preparation Programs in Business and Office Education," by William Selden, November 1968, 91 pages (ED 027-401)		2.00
Information Series (IN)		
• "Review and Synthesis of Research in Business and Office Education," by Frank W. Lanham and J. M. Trytten, August 1966, 144 pages (ED 001-566)	$.65	6.58
• "Review and Synthesis of Research in Business and Office Education," by Ray G. Price and Charles R. Hopkins, April 1970, 120 pages (ED 038-520)	.65	2.25
Center Related Series (CR)		
• "Business Education for the Emergent Office," by Harry Huffman and Dale D. Gust, June 1970, 192 pages (ED 043-754)	Complimentary	

All orders should be addressed to Dissemination Specialist, The Center for Vocational and Technical Education, 1900 Kenny Road, Columbus, Ohio 43210. Checks or institutional purchase orders should accompany each order. Make checks payable to The Center for Vocational and Technical Education.